

REMARKS

This Reply is responsive to the Office Action¹ dated January 7, 2010. Claims 1, 3, 5-10, 13-18, 22-32 and 34-36 were presented for examination and were rejected. Claims 2, 4, 11, 12, 19-21, and 33 were previously canceled. Claims 1, 10, 18, 28, 34 and 35 are independent claims and each is amended. Support for the amendments can be found in Applicant's application, as filed; for example, see at least paragraphs [0002] and [0004]. Claims 1, 3, 5-10, 13-18, 22-32 and 34-36 are pending.

The Rejections:

Claims 1, 3, 5, 9, 28, 30-32, and 35 are rejected under 35 U.S.C. §103(a) as being un-patentable over Farris et al., U.S. Patent No. 5,751,789 (referred to hereinafter as "Farris") in view of newly-cited Gerszberg et al., U.S. Patent No. 6,714,534 (referred to hereinafter as "Gerszberg").

Claim 6 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in views of Gerszberg and well known Prior Art (MPEP 2144.05).

Claim 7 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in views of Gerszberg, and Ehreth U.S. Patent No. 6,246,750 B1 (referred to hereinafter as "Ehreth").

Claim 8 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in views of Gerszberg and McKenna et al. U.S. Patent No. 6,829,486 B2 (referred to hereinafter as "McKenna").

¹ The Office Action may contain a number of statements characterizing the cited references and/or the claims which Applicant may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicant does not automatically subscribe to, or acquiesce in, any such statement. Further, silence with regard to rejection of a dependent claim, when such claim depends, directly or indirectly, from an independent claim which Applicant deems allowable for reasons provided herein, is not acquiescence to such rejection of that dependent claim, but is recognition by Applicant that such previously lodged rejection is moot based on remarks and/or amendments presented herein relative to that independent claim.

Claims 10, 17, 18 and 23-26 are rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina et al., U.S. 2004/0214569 A1 (referred to hereinafter as “Cardina”) in view of Gerszberg.

Claims 14-16 are rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in views of Gerszberg and Sawada, U.S. 2005/0148315 A1 (referred to hereinafter as “Sawada”).

Claim 27 is rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in views of Gerszberg and McKenna.

Claim 29 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in views of Gerszberg and Patron et al., (U.S. 2005/0063333 A1) (referred to hereinafter as “Patron”).

Claims 13 and 22 are rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in views of Gerszberg and further in view of well known prior art (MPEP 2144.05).

Claim 34 is rejected under 35 U.S.C. §103(a) as being un-patentable over Knight in view of Gerszberg.

Claim 36 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in views of Gerszberg and Cheng et al., U.S. 2002/0187746 (referred to hereinafter as “Cheng”).

Applicant respectfully traverses these rejections, at least because the cited references taken individually or in any reasonable combination do not disclose or suggest all claim limitations of each pending claim for the following reasons.

I. Independent Claim 1:

“lost connectivity to the wireline network due to a problem in a residence or place of business of a network subscriber associated with said another wireless transceiver”

Claim 1 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Farris in view of Gerszberg. Claim 1 reads on Applicant's Fig. 8 which shows three wireless subscribers or three network interface units (NIU's) identified as B, C and D. The wireless transceiver for subscriber B (right-hand side of Fig.) is the recited "wireless transceiver." The wireless transceiver for subscriber D (left-hand side of Fig.) is the recited "another wireless transceiver." The wireless transceiver for subscriber C (center of Fig.) is the recited "no more than one other wireless transceiver."

The Office Action admits that Farris does not disclose all of the subject matter recited in the wherein clause of claim 1. (Office Action, pg 3) The Office Action then alleges that newly-cited Gerszberg compensates for the admitted deficiencies of Farris by teaching all of the subject matter recited in that wherein clause and cites "Fig. 25; abstract; col. 20, lines 53-59; col 33, lines 34 - col. 34, lines 1-24" (Office Action, pgs 3-4) in support of the Office Action's position.

Applicant agrees that Gerszberg's Fig. 25 and a portion of the cited section in columns 33-34 do disclose a particular wireless relayed-link communication. This communication is from Gerszberg's ISD22/IRG22-1 director/gateway via transceiver 2502 wirelessly to intermediary (tap) transceiver 2503, and from intermediary (tap) transceiver 2503 wirelessly to transceiver 2501, and from transceiver 2501 via wireline to C-FMP 32-1 and, thereafter via wireline to node 61. (*See* Gerszberg, Fig. 25) However, this particular communication can take place only if Gerszberg's direct link 2506 is not working and only if a failure occurred at tap 60, or upstream thereof such as, e.g., between tap 60 and node 61, as explained below. The exact words in Gerszberg upon which the Examiner is relying to describe this particular wireless relayed-link include:

Further, tap 60 may have a battery backup and sense when it too has been removed from the network. In this case, if communication pathway 2506 from the ISD/IRG to the C-FMP cannot be established, then communication pathway pairs 2505 from transceiver 2502 to transceiver 2503 may be established and 2504 from transceiver 2503 to transceiver 2501 may be established to handle lifeline services when a cabled connection from ISD 221/IRG 22-1 to node 61. (Gerszberg, col. 33, line 62 - col. 34, line 2; emphasis added)

This section says that tap 60 can automatically determine or sense when it “has been removed from the network” and, in the context of “battery backup” the phrase “has been removed from the network” necessarily means that tap 60 is experiencing a loss of primary power, whereupon tap 60 can institute its own power via its own battery backup. In other words, tap 60 has a dedicated battery to supply backup power if, for whatever reason, primary power is no longer supplied to it. Tap 60 is part of the power and communication distribution infrastructure deployed by a service provider to service end user customers/subscribers. Thus, tap 60 receives its power from an upstream power source, not from downstream, of tap 60. For example, consider the following sections of Gerszberg:

When a tap is being serviced or repaired, the downstream service is typically interrupted for the duration of the service or repair. It is a principle of the present invention to design the tap or the service so that “lifeline” support may be provided to a customer over a coaxial cable facility. Such a scenario means that both service and power for powering a subscriber telephone device may not be interrupted. The tap may be provided, for example, with a redundant switchable coupler such that one, when taken out-of-service may leave the other redundant coupler in service and power pass-through to downstream subscribers. (Gerszberg, col. 7, lines 52-63; emphasis added)

The following discussion discusses how to pass power through each of the different components on the cable network. The first discussion will center on the individual tap modules and how to pass power from the node through the individual tap modules to the homes. In each of the individual taps the cable system has power in the cable at 90 volt 60 cycle power which is distributed through the center of the coaxial cable whereas the signal is distributed along the outer edge of the center coaxial cable in a skin effect since the high frequencies are distributed towards the outer edge of the cable. In passing the power through each of the taps, the cable is actually severed at each tap and a circuit board is interconnected between the input and output of the tap allowing for the power to

be filtered as well as isolation of each of the individual houses coming off the tap providing the high frequency cable system into the house. In the most preferred embodiments, the face plate may be removed without affecting power for all downstream homes from the tap. In this manner, highly reliable power systems may be utilized to provide continuous power downstream of the tap while the individual components on the tap are being serviced. (Gerszberg, col. 29, lines 37-58; emphasis added)

These two exemplary Gerszberg sections clearly show that, absent any failures, the tap receives its primary power from sources located upstream, and passes that power downstream. Therefore, this fact constrains the language “removed from the network” included in the phrase: “tap 60 may have a battery backup and sense when it [the tap] too has been removed from the network” appearing in the first Gerszberg section quoted above to mean that normal power from the tap’s upstream power source is not being applied to the tap. In other words, the tap 60 battery backup is employed as backup voltage when its need is sensed, and that need is sensed when the tap has lost normal power, and that normal power, based on the disclosure in Gerszberg comes only from a source *upstream* of the tap.

Therefore, the particular wireless relayed-link communication that takes place in Gerszberg when tap 60 “has been removed from the network” quoted above occurs only if (1) wireless link 2506 is not working AND (2) if there is a problem upstream of tap 60. But, quite differently, Applicant’s amended claim 1 now recites: “wherein the wireless transceiver is configured to relay data from another wireless transceiver that has lost connectivity to the wireline network due to a problem in a residence of a network subscriber associated with said another wireless transceiver...” (Claim 1, emphasis added) A problem *in* a residence can never be equivalent to a different problem occurring upstream from that residence.

Moreover, Gerszberg teaches that its tap lies on the far side of a protector block relative to its customer premise. Gerszberg refers to this protector block as defining a demarcation between a customer premise (subscriber's residence) and the network. For example:

Interconnected to the ISD/IRG may be a protector block 26 (for lightning and overvoltage protection) which is used for impedance matching. The protector block 26 may also act as a demarcation of the customer premise and the local loop transmission network. Copper twisted pair and/or coaxial cable may be utilized to connect the protector block and a CATV headend or a telephone Main Distribution Frame (MDF) as the main transmission medium in the local loop. (Gerszberg: col. 17, lines 8-15; emphasis added)

This section says that a protector block 26 acts as a place of demarcation between what can be considered the customer's premise and what is considered to be the local loop transmission network. In Fig. 1A of Gerszberg, it shows protector block 26 having ISD to its left (downstream) and having cable 30 to its right (upstream). In Fig. 1D, tap 60 is shown to the right (further upstream) of cable 30. Therefore, any failure or problem that results in loss of primary power to tap 60, which could trigger the particular wireless relayed-link communication described above and relied-upon by the Examiner to reject claim 1, is even further upstream of tap 60 and can *never* be the result of a problem *in* the subscriber's residence, particularly in view of Gerszberg's express identification of a demarcation point between network and customer premise.

Applicant submits that loss of wireline connectivity due to a problem in the residence of a network subscriber is a clearly different circumstance from loss of wireline connectivity due to a problem upstream of Gerszberg's tap. Moreover, in view of the Gerszberg express identification of a demarcation point between network and customer premise, even if a connectivity problem, i.e., a disconnect, occurs upstream of Gerszberg's tap, its transceiver 2502 is not disconnected from the wireline network at least because of Gerszberg's definition of his network. In other

words, transceiver 2502 remains wireline connected to the Gerszberg network because it remains wireline connected to, and through, cable 30 to tap 60, both of which fall on the *network* side of the protector block. Thus, by Gerszberg's own definition, (col. 17, lines 8-15), by transceiver 2502 remaining wireline connected to cable 30 and tap 60 under power loss conditions, transceiver 2502 remains wireline connected to the network, even though this portion of the network may be without primary power. Therefore, transceiver 2502 is not "another wireless transceiver that has lost connectivity to the wireline network" as recited in claim 1. It remains connected to the wireline network although, for some reason, application of primary power to the tap may have stopped. Notably, when a power outage occurs without any physical break in the wireline, transceiver 2502 remains wireline connected to 100% of the wireline network.

Accordingly, for all of these reasons, "lost connectivity to the wireline network due to a problem in a residence or place of business of a network subscriber associated with said another wireless transceiver" as recited in claim 1 is not disclosed or suggested by Gerszberg.

The Office Action (pg 3) admits that Farris does not disclose or suggest:

"wherein the wireless transceiver is configured to relay data from another wireless transceiver that has lost connectivity to the wireline network, said another wireless transceiver being connected to said wireless transceiver through no more than one other wireless transceiver that has also lost connectivity to the wireline network when said data is being relayed, said another and said other wireless transceivers having been wireline-connected to the wireline network during normal operation"

as recited in claim 1 prior to the current amendment. Further Applicant submits, for reasons given above, that Gerszberg does not disclose or suggest:

"wherein the wireless transceiver is configured to relay data from another wireless transceiver that has lost connectivity to the wireline network due to a problem in a residence or place of business of a network subscriber associated with said another wireless transceiver, said another wireless transceiver being connected to said wireless transceiver through no more than one other wireless transceiver that has also lost connectivity to the wireline network when said data is being relayed, said another and

said other wireless transceivers having been wireline-connected to the wireline network during normal operation” (emphasis added)

as recited in currently amended claim 1. Therefore, Farris and Gerszberg, taken individually or in any reasonable combination, do not disclose or suggest the subject matter recited in claim 1. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 1 be withdrawn and the claim allowed.

Dependent claims 3 and 5-9, dependent from claim 1, are allowable at least for reasons based on their respective dependencies from allowable claim 1.

II. Independent Claim 10:

“when the wireline connection fails due to a problem inside said premises of said network subscriber”

Claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Cardina in view of Gerszberg. Claim 10 also reads on Applicant’s Fig. 8.

The Examiner admits that Cardina does not disclose “wherein the connection to the network service provider is established over a wireless connection relayed from the network subscriber through more than one other subscriber...” (Office Action, pg 13)

The Examiner alleges that Gerszberg teaches subject matter to compensate for the admitted deficiencies of Cardina by citing Gerszberg, Fig. 25; abstract; col. 20, lines 53-59; col. 33, lines 34-col. 34, lines 1-24 which are the same cites provided in the Office Action to support the rejection of claim 1. Applicant incorporates by reference the arguments made above against Gerszberg for allowability of claim 1 and submits that Gerszberg does not disclose or suggest:

“when the wireline connection fails due to a problem inside said premises of said network subscriber, automatically establishing a substitute wireline connection to the network service provider over a over a wireless connection relayed from the network subscriber

through more than one other network subscriber, one said more than one other network subscriber having separate normal wireline-connectivity to the network service provider, said automatically establishing including: (a) providing wireless-connectivity directly between a first transceiver associated with said network subscriber and a second transceiver associated with a network subscriber other than said one said more than one other network subscriber, and (b) providing wireless connectivity directly between said second transceiver and a third transceiver associated with said one said more than one other network subscriber” (claim 10, emphasis added)

as recited in claim 10 for reasons that are the same as, or similar to, those reasons given for allowability of claim 1. Therefore, Cardina and Gerszberg, taken individually or in any reasonable combination, do not disclose or suggest the subject matter recited in claim 10. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 10 be withdrawn and the claim allowed.

Dependent claims 13-17, dependent from claim 10, are allowable at least for reasons based on their respective dependencies from allowable claim 10.

III. Independent Claim 18:

“said backup connectivity being provided when said wireline connectivity for said one node is lost due to a problem in said residence or said place of business”

Claim 18 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Cardina in view of Gerszberg. Claim 18 also reads on Applicant’s Fig. 8.

The Examiner admits that Cardina does not disclose “wherein said back up network connectivity is implemented by wirelessly relaying data directly from a first transceiver in said one node to a second transceiver in another node in the plurality of networks nodes which had an active wireline connection to the network service provider, said second transceiver being wirelessly connected directly to a third transceiver in yet another node in the plurality of nodes that has an active wireline connection to the network service provider.” (Office Action, pg 16)

The Examiner then alleges that Gerszberg teaches subject matter to compensate for the admitted deficiencies of Cardina by citing Gerszberg, Fig. 25; abstract; col. 20, lines 53-59; col. 33, lines 34-col. 34, lines 1-24 which are the same cites provided in the Office Action to support the rejection of claim 1. Applicant incorporates by reference the arguments made above against Gerszberg for allowability of claim 1 and submits that Gerszberg does not disclose or suggest:

“providing backup network connectivity to said one node for a network subscriber having a residence or place of business, said backup connectivity being provided when said wireline connectivity for said one node is lost due to a problem in said residence or said place of business via a wireless network by wirelessly relaying data directly from a first transceiver in said one node to a second transceiver in another node in the plurality of network nodes which had an active wireline connection to the network service provider, said second transceiver being wirelessly connected directly to a third transceiver in yet another node in the plurality of nodes that has an active wireline connection to the network service provider” (claim 18, emphasis added)

as recited in claim 18 for reasons that are the same as, or similar to, those reasons given for allowability of claim 1. Therefore, Cardina and Gerszberg, taken individually or in any reasonable combination, do not disclose or suggest claim 18. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 18 be withdrawn and the claim allowed.

Dependent claims 22-27, dependent from claim 18, are allowable at least for reasons based on their respective dependencies from allowable claim 18.

IV. Independent Claim 28:

“when connectivity on the one of the wireline connections fails due to a problem in a residence or place of business of said corresponding subscriber”

Claim 28 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Farris in view of Gerszberg. Claim 28 also reads on Applicant’s Fig. 8.

The Examiner admits that Farris does not disclose “wherein the wireless transceiver is configured to relay data directly from another wireless transceiver in another NIU to which its

respective one of said wireline connection has failed, the another wireless transceiver relaying said data directly from yet another transceiver in yet another NIU that is wireline-connected to the wireline network.” (Office Action, pg 6)

The Examiner then alleges that Gerszberg teaches subject matter to compensate for the admitted deficiencies of Farris by citing Gerszberg, Fig. 25; abstract; col. 20, lines 53-59; col. 33, lines 34-col. 34, lines 1-24 which are the same cites provided in the Office Action to support the rejection of claim 1. Applicant incorporates by reference the arguments made above for allowability of claim 1 and submits that Gerszberg does not disclose or suggest:

“a switch coupled to the wireless transceiver and to one of the wireline connections, the switch providing data from the one of the wireline connections to a corresponding subscriber of the network during normal operation of the one of the wireline connections and the switch providing data from the wireless transceiver to the corresponding subscriber of the network when connectivity on the one of the wireline connections fails due to a problem in a residence or place of business of said corresponding subscriber;” (claim 28, emphasis added)

as recited in claim 28 for reasons that are the same as, or similar to, those reasons given for allowability of claim 1. Therefore, Farris and Gerszberg, taken individually or in any reasonable combination, do not disclose or suggest claim the subject matter recited in claim 28. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 28 be withdrawn and the claim allowed.

Dependent claims 29-32 and 36, dependent from claim 28, are allowable at least for reasons based on their respective dependencies from allowable claim 28.

V. Independent Claim 34:

“when said first wireline communication fails due to a problem inside premises of said first network subscriber ”

Claim 34 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Knight in view of Gerszberg. Claim 34 also reads on Applicant's Fig. 8.

The Examiner admits that Knight does not disclose "wirelessly relaying data indirectly between two nodes through a third node associated with a third network subscriber, said one node having a first transceiver, said other node having a second transceiver and said third node having a third transceiver, wherein wirelessly relaying data includes said first transceiver wireless communicating directly with said third transceiver and said third transceiver wirelessly communicating directly with said second transceiver." (Office Action, pg 22)

The Examiner then alleges that Gerszberg teaches subject matter to compensate for the admitted deficiencies of Knight by citing Gerszberg, Fig. 25; abstract; col. 20, lines 53-59; col. 33, lines 34-col. 34, lines 1-24 which are the same cites provided in the Office Action to support the rejection of claim 1. (Office Action, pg 22) Applicant incorporates by reference the arguments made above against Gerszberg for allowability of claim 1 and submits that Gerszberg does not disclose or suggest:

"providing, when said first wireline communication fails due to a problem inside premises of said first network subscriber, substitute wireline communication for said first network subscriber by way of said second wireline communication by wirelessly relaying data indirectly between two nodes through a third node associated with a third network subscriber with failed wireline communication, one of said two nodes located in or on said premises of said first network subscriber and the other of said two nodes located in or on premises of said second network subscriber, said other of said two nodes relaying said data with said network service provider over a wireline otherwise normally carrying only said second wireline communication, said one node having a first transceiver, said other node having a second transceiver and said third node having a third transceiver, wherein said wirelessly relaying data includes said first transceiver wirelessly communicating directly with said third transceiver and said third transceiver wirelessly communicating directly with said second transceiver." (claim 34, emphasis added)

as recited in claim 34 for reasons that are the same as, or similar to, those reasons given for allowability of claim 1. Therefore, Knight and Gerszberg, taken individually or in any

reasonable combination, do not disclose or suggest the subject matter recited in claim 34. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 34 be withdrawn and the claim allowed.

VI. Independent Claim 35:

“wherein the wireless transceiver is configured to exchange said other data from another wireless transceiver that has lost wireline connectivity to the network due to a problem in a home or place of business of a network subscriber associated with said another wireless transceiver ”

Claim 35 is rejected under 35 U.S.C. §103(a) as allegedly being un-patentable over Farris in view of Gerszberg. Claim 35 also reads on Applicant’s Fig. 8.

The Examiner admits that Farris does not disclose “wherein the wireless transceiver is configured to exchange said other data from *another* wireless transceiver that has lost wireline connectivity to the network, said another wireless transceiver being wireline connected directly to a third wireless transceiver that has also lost wireline connectivity to the network, said third wireless transceiver being wirelessly connected directly to said wireless transceiver when said other data is being exchanged.” (Office Action, pg 9)

The Examiner then alleges that Gerszberg teaches subject matter to compensate for the admitted deficiencies of Farris by citing Gerszberg, Fig. 25; abstract; col. 20, lines 53-59; col. 33, lines 34-col. 34, lines 1-24 which are the same cites provided in the Office Action to support the rejection of claim 1. (Office Action, pgs 9-10) Applicant incorporates by reference the arguments made above for allowability of claim 1 and submits that Gerszberg does not disclose or suggest:

“wherein the wireless transceiver is configured to exchange said other data from another wireless transceiver that has lost wireline connectivity to the network due to a problem in a home or place of business of a network subscriber associated with said another wireless transceiver, said another wireless transceiver being wirelessly connected directly to a

third said wireless transceiver that has also lost wireline connectivity to the network, said third wireless transceiver being wirelessly connected directly to said wireless transceiver when said other data is being exchanged” (claim 35, emphasis added)

as recited in claim 35 for reasons that are the same as, or similar to, those reasons given for allowability of claim 1. Therefore, Farris and Gerszberg, taken individually or in any reasonable combination, do not disclose or suggest the subject matter of claim 35. For these reasons, Applicant requests that the 35 U.S.C. § 103(a) rejection of claim 35 be withdrawn and the claim allowed.

Applicant does not acquiesce in the combinability of these references. Applicant reserves its rights to present full arguments rebutting these reference-combinations in subsequent responses if need be. Applicant views its remarks as sufficient to overcome the rejections of all pending claims.²

CONCLUSION

In view of the Remarks, reconsideration and allowance of the pending claims are respectfully requested. It is respectfully submitted that all claims and, therefore, this application are in condition for allowance and prompt passage to issue is respectfully requested.

² As Applicant’s remarks with respect to the Examiner’s rejections are sufficient to overcome these rejections, Applicant’s silence as to assertions by the Examiner in the Office Action of certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. Please charge any other fees due, or credit any overpayment made to that account.

Respectfully submitted,

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/Joel Wall, Reg. No. 25,648/

Joel Wall

Attorney for Applicant

Registration No. 25,648

Eddy Valverde, Patent Paralegal
VerizonPatent Management Group
1320 North Courthouse Road, 9th Floor
Arlington, VA 22201-2909
703-351-3032

CUSTOMER NO. 25,537